



Fermilab

Fermi National Accelerator Laboratory
P.O. Box 500, Batavia, Illinois 60510
Phone: (630) 840-8779
Fax : (630) 840-2677
Accelerator Division/Electron Cooling

January 21, 2004

MEMO TO: Distribution

FROM: Jerry Leibfritz
Project Manager

SUBJECT: **DECEMBER MONTHLY REPORT
MI-31
FESS/Engineering Project No. 6-6-44**

Please find attached the December 2003 monthly report for this project.

Enclosure

Distribution:

- P. Philp/MS 118
- M. Witherell/MS 105
- K. Stanfield/ MS 105
- S. Holmes/MS 105
- E. Temple/ MS 200
- J. Brown/MS 200
- H. Dick/ MS 306
- D. Carlson/MS 211
- C. Trimby/MS 212
- D. Nevin/MS 214
- E. Crumpley/MS 214
- S. Nagaitsev/ MS 307
- J. Sims/MS 214
- T. Prosapio/MS 214
- J. Spalding/MS 341
- R. Stefanski/MS 122
- Project File 6-6-44
- Chrono File

REPORTING PERIOD: December 2003

I. PROGRESS

1.1 General Construction

- a. Activity – Primary work activities included siding installation, crane installation, built up roof construction, concrete masonry unit installation and electrical rough in.
- b. Cumulative hours worked – 15,212.5 hours through 12/31/03.
- c. Subcontractor's schedule evaluation – As of 12/31/03 the Subcontractor is on schedule. The Subcontractor's sixth payment update occurred on December 31, 2003. See attached reports and section II of this report for an earned value analysis. The main Subcontract is approximately 74% complete as of 12/31/03.
- d. Engineering Change Proposals/ Requests – See latest ECP list on Website. Supplemental Agreement numbers 1 through 6 have been incorporated into the Subcontract. At this time the total subcontract amount is \$2,648,898 and the completion date is 04/04/04.
- e. Upcoming issues – Roofing, siding, mechanical and electrical rough in will be the focus of the month of December
- f. Photographs:





1.2 Project Support

- a. Efforts this month were spent on review of submittals, field supervision and construction administration related activities.

SCHEDULE INFORMATION AND MILESTONES:

MILESTONE	DEFINITION	BASELINE	PEP Dates	Latest Estimates
Start Project	Directive signed	30 May 02	30 May 02	26 Jun 02 (actual)
T2 Design Complete	Contract documents submitted for procurement	15 Jan 03	15 Aug 02	15 Nov 02 (actual)
Begin Construction	Notice To Proceed Issued – Switch work	27 Jun 03	21 Nov 02	17 Jan 03 (actual)
Construction Complete	Final acceptance of all work	9 Jun 04	9 Dec 03	4 Apr 04
Project Complete	Project closed	30 Nov 04	10 Dec 03	15 May 04

**II. Overall Project Cost Summary and Earned Value Analysis:**

ORIGINAL BASELINE PROJECT COSTS (2001 dollars)				Latest Estimated Cost*	
1.1 General Construction			\$3,047,000	\$3,133,720	
1.1.1	Construction W / 18% OHP		\$2,323,000	\$2,797,203	
1.1.2	Construction Contingency	22%	\$511,000	\$230,646	8%
1.1.3	Construction G & A		\$83,000	\$105,871	
1.1.4	Escalation (4.6%)	4.6%	\$130,000	\$0	
1.2 Project Support			\$763,000	\$676,280	
1.2.1	Project Engineering		\$465,000	\$482,487	
1.2.2	Project Support Contingency	21%	\$99,000	\$58,702	12%
1.2.3	Project Support G & A		\$166,000	\$135,091	
1.2.4	Escalation (4.6%)		\$33,000	\$0	
Total Project Cost			\$3,810,000	\$3,810,000	

*NOTE THAT 1.1 AND 1.2 HAVE BEEN REDISTRIBUTED (2/21/03) TO REFLECT USE OF MUCH OF THE ESCALATION, ACTUAL FIXED PRICE CONSTRUCTION COSTS, AND A HIGHER CONTINGENCY. Includes Supplemental Agreements 1,through 6 and all T&M actual costs to date.

TPC Earned Value Analysis as of December 31, 2003 (based on earned value reports for December 2003):

1. The Schedule Variance is \$72,663.
2. The Cost Variance is \$14,089.



ATTACHMENTS

See MI-31 website

<http://www-ap.fnal.gov/ecool/internal.html>

for the following:

TSR Report for 12-03

Earned Value Reports - Cost Reports and Graphs up to 12-03

Engineering Change Proposal List

More Photographs

Task Summary Report by Expenditure Type ("TSR")

[Enter Another Query](#)
Fermilab Business Services

Period End: DEC03-04

Report on tasks: 1 1

A0201 - MI31 Ecooling Bldg

1 - MI31 Ecooling Bldg
Service Type: PL-EXST PRGM
SUPP-AIP

Personnel Costs

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
FRINGE BENEFITS	260.75	818.47	818.47	3,009.53	3,009.53	0.00	0.00
OPTO ALLOC-MONTHLY	45.36	142.38	142.38	847.43	847.43	0.00	0.00
OPTO ALLOC-WEEKLY	0.00	0.00	0.00	79.14	79.14	0.00	0.00
OVERTIME	0.00	76.06	76.06	180.15	180.15	0.00	0.00
TIME WORKED -MONTHLY	697.85	2,190.48	2,190.48	11,089.72	11,089.72	0.00	0.00
TIME WORKED -WEEKLY	0.00	0.00	0.00	15.93	15.93	0.00	0.00
VAC EARNED ALLOC-MONTHLY	76.76	240.94	240.94	1,421.19	1,421.19	0.00	0.00
VAC EARNED ALLOC-WEEKLY	0.00	0.00	0.00	94.91	94.91	0.00	0.00
Personnel Costs	1,080.72	3,468.33	3,468.33	16,738.00	16,738.00	0.00	0.00

Materials & Services

CONSTRUCTION ENGINEERING	19,199.00	61,320.00	61,320.00	312,565.00	312,565.00	0.00	0.00
EXEMPT - CIVIL CONSTR.	560,829.00	560,829.00	574,191.00	1,756,677.00	1,743,315.00	67,645.45	13,362.00
EXEMPT - CIVIL CONSTRUCTION	-560,829.00	49,044.00	-560,829.00	892,221.00	49,044.00	8,771.00	843,177.00
FEES	0.00	0.00	0.00	500.00	500.00	0.00	0.00
FREIGHT	0.00	5.84	5.84	11.41	11.41	0.00	0.00
MACHINE SHOP	0.00	110.00	110.00	110.00	110.00	0.00	0.00
MATERIAL PURCHASES	0.00	832.00	30,822.06	51,283.77	21,293.71	0.00	29,990.06
PHOTO/GRAPHIC SERVICES	23.00	57.00	57.00	135.00	135.00	0.00	0.00
STORES ISSUES	0.00	0.00	0.00	640.42	640.42	0.00	0.00
SUB-CONTRACT SERVICES	0.00	1,829.30	158.80	108,809.03	105,549.49	0.00	3,259.54
T&M CONSTRUCTION SVCS.	0.00	0.00	0.00	8,678.12	8,678.12	0.00	0.00

1 - MI31 Ecooling Bldg
Service Type: PL-EXST PRGM
SUPP-AIP
Materials & Services

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
T&M ELECTRICAL SERVICES	0.00	0.00	0.00	12,966.11	12,966.11	0.00	0.00
T&M PIPE FITTERS	0.00	0.00	0.00	2,050.86	2,050.86	0.00	0.00
T&M RIGGING SERVICES	0.00	19,424.12	2,185.12	83,468.96	64,829.68	0.00	18,639.28
TRAVEL, DOMESTIC-LAB EMPLOYEE	95.13	95.13	95.13	95.13	95.13	0.00	0.00
Materials & Services	19,317.13	693,546.39	108,115.95	3,230,211.81	2,321,783.93	76,416.45	908,427.88
<u>Indirect Cost</u>							
CSS ALLOCATION	3,751.75	12,006.21	12,006.21	60,145.84	60,145.84	0.00	0.00
G&A ALLOCATION	11.81	15.21	15.21	62,290.87	62,290.87	0.00	0.00
G&A ALLOCATION-CSS PORTION	2,403.16	7,690.49	7,690.49	33,247.18	33,247.18	0.00	0.00
G&A ALLOCATION-M&S PORTION	0.00	2,330.63	2,330.63	18,533.67	18,533.67	0.00	0.00
MSA ALLOCATION	0.00	1,215.03	1,215.03	40,957.29	40,957.29	0.00	0.00
Indirect Cost	6,166.72	23,257.57	23,257.57	215,174.85	215,174.85	0.00	0.00
1 - MI31 Ecooling Bldg SUBTOTAL:	26,564.57	720,272.29	134,841.85	3,462,124.66	2,553,696.78	76,416.45	908,427.88
DIST. TO ACCOUNTS REC'BL:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UNDISTRIBUTED BALANCE:	26,564.57	720,272.29	134,841.85	3,462,124.66	2,553,696.78	76,416.45	908,427.88

Period End: DEC03-04

Report on tasks: 1 1

<u>REPORT TOTALS</u>							
TOTAL PROJECT/TASK:	26,564.57	720,272.29	134,841.85	3,462,124.66	2,553,696.78	76,416.45	908,427.88
TOTAL DIST. ACCTS REC'BL:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL UNDIST BALANCE:	26,564.57	720,272.29	134,841.85	3,462,124.66	2,553,696.78	76,416.45	908,427.88

BCWP
MI-31 Spending Profile
WBS 1.1 and 1.2

F Y O 2	Title Source Type	WBS 1.2 Project Support												WBS 1.1 Construction																								
		ED&I								A						Subcontract	Subcontract	Subcontract	Subcontract	Switch conduit	Switch conduit	Transformer Purchase	Transformer Purchase	Cable Tray	Cable Tray	Cabling	Chiller	Chiller	Shielding Steel	Shielding Steel	Shielding Steel	Shielding Steel						
		T2 Hanson Direct	T2 Hanson G&A	T2 FESS Chargeback	T2 FESS G&A	T3 FESS M&S	T3 FESS Chargeback	T3 FESS G&A	T3 FESS Chargeback	T3 FESS G&A	T3 PM Salary TX	T3 PM G&A	Monthly Totals	Cumulative Totals	T3 Whittaker Direct**	T3 Whittaker G&A	T3 Whittaker Incentive	T3 Whittaker G&A	T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A	T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A	Monthly Totals	Cumulative Totals						
Mo-Yr																																						
F Y O 2	Jul-02	\$25,000	\$4,250	\$10,000	\$3,000	\$300	\$51					\$42,601	\$42,601																		\$0	\$0						
	Aug-02	\$20,000	\$3,400	\$10,000	\$3,000					\$1,000	\$300	\$37,700	\$80,301																		\$0	\$0						
	Sep-02	\$24,587	\$4,180	\$11,800	\$3,540					\$1,000	\$300	\$45,407	\$125,708																		\$0	\$0						
	Oct-02	\$10,000	\$3,000			\$300	\$51			\$3,000	\$900	\$1,000	\$300	\$18,551	\$144,259																	\$0	\$0					
F Y O 3	Nov-02	\$20,500	\$3,485	\$10,000	\$3,000				\$3,000	\$900	\$1,000	\$300	\$42,185	\$186,444																		\$0	\$0					
	Dec-02								\$3,000	\$900	\$1,000	\$300	\$7,800	\$194,244																		\$0	\$0					
	Jan-03								\$3,000	\$900	\$1,000	\$300	\$7,800	\$202,044					\$10,396	\$1,913											\$12,309	\$12,309						
	Feb-03								\$3,000	\$900	\$1,000	\$300	\$7,800	\$209,844					\$10,435	\$1,920												\$12,355	\$24,664					
	Mar-03					\$200	\$34	\$12,000	\$3,720	\$11,000	\$3,410	\$1,000	\$300	\$31,664	\$241,508	\$0			\$66	\$12											\$78	\$24,742						
	Apr-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$274,048	\$92,204					\$20,537	\$3,257										\$115,998	\$140,740					
	May-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$306,588	\$331,522																\$331,522	\$472,262					
	Jun-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$339,128	\$320,000	\$80,240																\$400,240	\$872,502				
	Jul-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$371,668	\$109,886																	\$109,886	\$982,388				
	Aug-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$404,208	\$253,407																	\$253,407	\$1,235,795				
Sep-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$436,748	\$104,898																	\$150,731	\$1,386,526					
F Y O 4	Oct-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$469,288	\$119,114																	\$39,087	\$6,746				
	Nov-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$499,828	\$135,828																	\$33,154	\$5,724				
	Dec-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$532,368	\$158,368																	\$177,992	\$1,564,518				
	Jan-04												\$0	\$534,368	\$231,536																		\$390,529	\$1,955,047				
	Feb-04												\$0	\$534,368																			\$2,186,583	\$2,186,583				
	Mar-04												\$0	\$534,368																			\$2,186,583	\$2,186,583				
Apr-04												\$0	\$534,368																			\$2,186,583	\$2,186,583					
TOTALS		\$90,087	\$15,315	\$51,800	\$15,540	\$800	\$136	\$126,000	\$39,000	\$134,000	\$41,390	\$16,100	\$4,200					\$1,953,096	\$80,240	\$20,000	\$0	\$20,897	\$3,845	\$20,537	\$3,257	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,087	\$6,746	\$33,154	\$5,724		\$2,720,955

WBS 1.2 Escalation and Contingency

Total for WBS 1.2 =	\$676,280	
Total Direct and G&A (above)=	\$534,368 *	
Project Support Escalation =	\$0	
Project Support Contingency =	\$141,912	34%

** NOTE BUDGETED COST OF WORK PERFORMED IS BASED ON WHITTAKERS LATEST T3 COST LOADED SCHEDULE.

WBS 1.1 Escalation and Contingency

Total for WBS 1.1 =	\$3,133,720	
Total Direct and G&A (above)=	\$2,186,583 *	
Project Support Escalation =	\$0	
Construction Contingency =	\$947,137	45%

Total Indirect=	\$115,581
Total Direct =	\$418,787

Total Indirect=	\$99,812
Total Direct =	\$2,086,771

ACWP
MI-31 Actual Spending Profile
WBS 1.1 and 1.2

F Y O 2	Title Source Type	WBS 1.2 Project Support												WBS 1.1 Construction																									
		ED&I						A				Monthly Totals	Cumulative Totals	Subcontract	Subcontract	Subcontract	Subcontract	Switch conduit	Switch conduit	Transformer Purchase	Transformer Purchase	Cable Tray	Cable Tray Cabling	Cabling	Chiller	Chiller	Shielding Steel Fab	Shielding Steel Fab	Shielding Steel Inst.	Shielding Steel Inst.	Monthly Totals	Cumulative Totals							
		T2 Hanson Direct	T2 Hanson G&A	T2 FESS Chargeback	T2 FESS G&A	T3 FESS M&S Direct	T3 FESS M&S G&A	T3 FESS Chargeback	T3 FESS G&A	T3 FESS Chargeback	T3 PM Salary TX			T3 PM G&A	T3 Whittaker Direct**	T3 Whittaker G&A	T3 Whittaker Incentive	T3 Whittaker G&A	T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A	T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A			T3 T&M Direct	T3 T&M G&A					
Mo-Yr																																							
E Y O 3	Jul-02			\$8,512	\$2,477	\$304	\$52					\$11,345	\$11,345																										
	Aug-02	\$41,283	\$7,018	\$12,736	\$3,550					\$967	\$290	\$65,844	\$77,189																										
	Sep-02	\$28,350	\$4,820	\$13,376	\$4,013					\$967	\$290	\$51,815	\$129,004																										
	Oct-02			\$5,503	\$1,535	\$2,594	\$441					\$500	\$201	\$21,171	\$150,175																								
E Y O 3	Nov-02	\$20,500	\$3,764					\$8,130	\$2,268			\$2,024	\$577	\$803	\$241																								
	Dec-02							\$5,538	\$1,816			\$6,390	\$2,098	\$857	\$111																								
	Jan-03							\$1,562	\$484			\$6,106	\$1,893	\$679	\$124																								
	Feb-03							\$12,000	\$3,720			\$5,608	\$1,738	\$836	\$110																								
	Mar-03							\$16,015	\$5,125			\$2,800	\$896	\$836	\$291																								
	Apr-03							\$9,372	\$2,999			\$1,846	\$591	\$1,233	\$63																								
	May-03							\$14,444	\$4,333			\$9,230	\$2,769	\$1,018	\$266																								
	Jun-03							\$10,781	\$3,234			\$12,354	\$3,706	\$909	\$155																								
	Jul-03							\$10,773	\$3,232			\$14,000	\$4,200	\$255	\$77																								
	Aug-03							\$6,223	\$1,867			\$19,525	\$5,858	\$1,231	\$209																								
	Sep-03							\$51,332	\$15,790			\$461,603	\$141,177	\$354	\$117																								
	F Y O 4	Oct-03							\$2,920	\$876			\$12,921	\$3,876	\$1,596	\$271																							
Nov-03								\$12,038	\$3,611			\$15,987	\$4,796	\$791	\$135																								
Dec-03								\$8,361	\$2,508			\$10,957	\$3,287	\$1,081	\$371																								
Jan-04												\$0	\$548,148																										
Feb-04												\$0	\$548,148																										
Mar-04												\$0	\$548,148																										
Apr-04												\$0	\$548,148																										
TOTALS			\$90,133	\$15,601	\$40,127	\$11,575	\$3,037	\$516	\$130,158	\$39,584	\$152,124	\$45,998	\$15,736	\$3,559			\$1,953,096	\$80,240	\$20,000	\$0	\$20,897	\$3,845	\$20,357	\$3,746	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		

WBS 1.2 Escalation and Contingency
Total for WBS 1.2 = \$676,280
Total Direct and G&A (above)= \$548,148
Project Support Escalation = \$0
Project Support Contingency = \$128,132 Not Accurate, Reflects unused portions of Direct and Indirect Costs

** NOTE: THIS SPREAD SHEET WILL NOT FOLLOW THE MONTHLY TSR DIRECTLY BECAUSE COST SHOWN UNDER WHITTAKERS T3 SUBCONTRACT ARE EARNED VALUE NOT WHAT HAS BEEN PAID OUT. SEE THE CHART BELOW FOR PAYOUT INFORMATION.

WBS 1.1 Escalation and Contingency
Total for WBS 1.1 = \$3,133,720
Total Direct and G&A (above)= \$2,186,892
Project Support Escalation = \$0
Construction Contingency = \$946,828 Not Accurate, Reflects unused portions of Direct and Indirect Costs

***Includes FESS T&M charges for repair of a broken ICW line

*Total Indirect= \$116,834
Total Direct = \$431,314

Note: 1. G&A distribution by month is approximate
2. Text in italics includes costs from Hanson Engineers PO 550107as support of FESS/Engr in house efforts.

*Total Indirect= \$100,301
Total Direct = \$2,086,591

PAYOUT SUMMARY																	
Payout #	Payout Date	PAYMENT MILESTONE	Completion DATE	Actual Comp DATE	AMOUNT	CUMULATIVE TOTAL PAYOUT	RETENTION 10% RETENTION	CUMULATIVE 10% RETENTION	% OF CONTRACT COMPLETE								
Payout #1	6/12/2003	1A	05/02/03	5/5/2003	\$118,384.00	\$118,384.00	\$11,838.40	\$11,838.40									
	\$399,141	1B	06/18/03	6/10/2003	\$280,757.00	\$399,141.00	\$28,075.70	\$39,914.10	15%								
Payout #2	7/1/2003	1C	06/25/03	6/15/2003	\$210,313.00	\$609,454.00	\$21,031.30	\$60,945.40									
	\$361,749	1D	06/27/03	6/27/2003	\$106,112.00	\$715,566.00	\$10,611.20	\$71,556.60									
		1E	07/25/03	7/1/2003	\$45,324.00	\$760,890.00	\$4,532.40	\$76,089.00	29%								
Payout #3	8/13/2003	1F	08/08/03	7/18/2003	\$89,708.00	\$850,598.00	\$8,970.80	\$85,059.80									
	\$180,494	1G	08/05/03	8/5/2003	\$87,682.00	\$938,280.00	\$8,768.20	\$93,828.00									
		1J	07/24/03	7/10/2003	\$3,014.00	\$941,294.00	\$301.40	\$94,129.40	36%								
Payout #4	9/3/2004	1H	08/28/03	8/18/2003	\$88,043.00	\$1,029,337.00	\$8,804.30	\$102,933.70									
	\$165,725	1I	09/08/03	8/28/2003	\$77,682.00	\$1,107,019.00	\$7,768.20	\$110,701.90	42%								
Payout #5	10/20/2003	1K	09/25/03	9/8/2003	\$37,558.00	\$1,144,577.00	\$3,755.80	\$114,457.70									
	\$174,042	5A	10/02/03	9/28/2003	\$67,340.00	\$1,211,917.00	\$6,734.00	\$121,191.70									
		5B	10/28/03	10/20/2003	\$69,144.00	\$1,281,061.00	\$6,914.40	\$128,106.10	48%								
Payout #6	11/21/2003	2A	10/31/03	10/31/03	\$60,617.00	\$1,341,678.00	\$6,061.70	\$134,167.80									
	\$460,499	2B	11/14/03	11/14/03	\$68,843.00	\$1,410,521.00	\$6,884.30	\$141,052.10									
		2C	11/19/03	11/19/03	\$26,363.00	\$1,436,884.00	\$2,636.30	\$143,688.40									
		2E	12/21/03	12/21/03	\$184,659.00	\$1,621,543.00	\$18,465.90	\$162,154.30									
		2H	11/10/04	11/10/04	\$46,172.00	\$1,667,715.00	\$4,617.20	\$166,771.50									
		3A	11/17/03	11/10/04	\$73,845.00	\$1,741,560.00	\$7,384.50	\$174,156.00	66%								
Payout #7	12/31/2003	2F	12/31/03	12/31/2003	\$107,648.00	\$1,849,208.00	\$10,764.80	\$184,920.80									
	\$231,536	2I	12/31/03	12/31/2003	\$103,663.00	\$1,952,871.00	\$10,366.30	\$195,287.10									
		3D	12/23/03	12/23/2003	\$20,225.00	\$1,973,096.00	\$2,022.50	\$197,309.60	74%								
		2D	11/20/03		\$9,850.00												
		2G	12/31/03		\$28,812.00												
		3B	02/03/04		\$284,128.00												
		3C	02/16/04		\$55,125.00												
		3E	02/16/04		\$18,276.00												
		3F	02/16/04		\$58,406.00												
		4A	03/08/04		\$13,545.00												
		4B	02/23/04		\$22,295.00												
		4C	03/04/04		\$84,375.00												
		4D	03/08/04		\$34,463.00												
		4E	03/08/04		\$10,727.00												
		6	03/17/04		\$20,800.00												
		7	04/04/04		\$35,000.00												
					\$2,648,898.00												

BCWS
MI-31 Anticipated Spending Profile
WBS 1.1 and 1.2

FY02	WBS 1.2 Project Support														WBS 1.1 Construction																			
	ED&I								A						Subcontract	Subcontract	Subcontract	Subcontract	Switch conduit	Switch conduit	Transformer Purchase	Transformer Purchase	Cable Tray	Cable Tray Cabling	Cabling	Chiller	Chiller	Shielding Steel	Fab Shielding Steel	Fat Shielding Steel	Inst. Shielding Steel	Inst. Shielding Steel		
	T2 Hanson	T2 Hanson	T2 FESS	T2 FESS	T3 FESS	T3 FESS	T3 FESS	T3 FESS	T3 FESS	T3 FESS	T3 PM	T3 PM	Monthly Totals	Cumulative Totals	T3 Whittaker	T3 Whittaker	T3 Whittaker	T3 Whittaker	T3 T&M	T3 T&M	T3 Procurement	T3 Procurement	T3 T&M	T3 T&M	T3 T&M	T3 Procurement	T3 Procurement	T3 T&M	T3 T&M	T3 T&M	T3 T&M	Monthly Totals	Cumulative Totals	
Title Source Type	Direct	G&A	Chargeback	G&A	M&S	Chargeback	G&A	Chargeback	G&A	Salary TX	G&A			Direct**	G&A	Incentive	G&A	Direct	G&A	Direct	G&A	Direct	G&A	Direct	Direct	G&A	Direct	G&A	Direct	G&A	Direct	G&A		
	Mo-Yr																																	
	Jul-02	\$25,000	\$4,250	\$10,000	\$3,000	\$300	\$51					\$42,601	\$42,601																			\$0	\$0	
	Aug-02	\$20,000	\$3,400	\$10,000	\$3,000					\$1,000	\$300	\$37,700	\$80,301																			\$0	\$0	
	Sep-02	\$24,587	\$4,180	\$11,800	\$3,540					\$1,000	\$300	\$45,407	\$125,708																			\$0	\$0	
	Oct-02	\$10,000	\$3,000			\$300	\$51			\$3,000	\$900	\$1,000	\$300	\$18,551	\$144,259																	\$0	\$0	
	Nov-02	\$20,500	\$3,485	\$10,000	\$3,000					\$3,000	\$900	\$1,000	\$300	\$42,185	\$186,444																	\$0	\$0	
	Dec-02									\$3,000	\$900	\$1,000	\$300	\$7,800	\$194,244																	\$0	\$0	
	Jan-03									\$2,000	\$600	\$3,000	\$900	\$1,000	\$300	\$7,800	\$202,044															\$24,742	\$24,742	
	Feb-03									\$2,000	\$600	\$3,000	\$900	\$1,000	\$300	\$7,800	\$209,844															\$0	\$48,845	
	Mar-03					\$200	\$34	\$12,000	\$3,720	\$11,000	\$3,410	\$1,000	\$300	\$31,664	\$241,508	\$0					\$20,357	\$3,746										\$0	\$48,845	
	Apr-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$274,048	\$92,204																	\$92,204	\$141,049
	May-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$306,588	\$330,958																	\$330,958	\$472,007
	Jun-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$339,128	\$292,404																	\$372,644	\$844,651
	Jul-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$371,688	\$136,381																	\$136,381	\$981,032
	Aug-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$404,208	\$177,390																	\$177,390	\$1,158,422
	Sep-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$436,748	\$162,580																	\$228,413	\$1,386,835
	Oct-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$469,288	\$288,714																	\$33,154	\$5,724
	Nov-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$501,828	\$259,704																	\$327,592	\$1,714,427
	Dec-03							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$534,368	\$273,515																	\$271,304	\$1,985,731
	Jan-04							\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$566,908	\$179,385																	\$273,515	\$2,259,246
	Feb-04							\$8,000	\$2,480	\$8,000	\$2,480	\$900	\$200	\$22,060	\$588,968	\$110,960																	\$179,385	\$2,438,631
	Mar-04							\$4,000	\$1,240	\$4,000	\$1,240	\$450	\$200	\$11,130	\$600,098	\$268,903																	\$228,413	\$2,666,771
	Apr-04							\$1,000	\$310	\$12,000	\$3,720	\$450	\$200	\$17,680	\$606,648	\$55,800																	\$128,140	\$2,666,771
	TOTALS	\$90,087	\$15,315	\$51,800	\$15,540	\$800	\$136	\$151,000	\$46,750	\$170,000	\$52,550	\$18,800	\$5,000		\$2,628,898	\$80,240	\$20,000	\$0	\$20,897	\$3,845	\$20,357	\$3,746	\$14,810	\$2,370	\$10,000	\$1,600	\$10,000	\$1,600	\$39,087	\$6,746	\$33,154	\$5,724	\$67,400	\$2,634,171
																																		\$3,520,851

WBS 1.2 Escalation and Contingency

Total for WBS 1.2 =	\$676,280	
Total Direct and G&A (above)=	\$617,778 *	
Project Support Escalation =	\$0	
Project Support Contingency =	\$58,502	12%

**** NOTE BUDGETED COST OF WORK SCHEDULED IS BASED ON WHITTAKERS LATEST T3 COST LOADED SCHEDULE.**

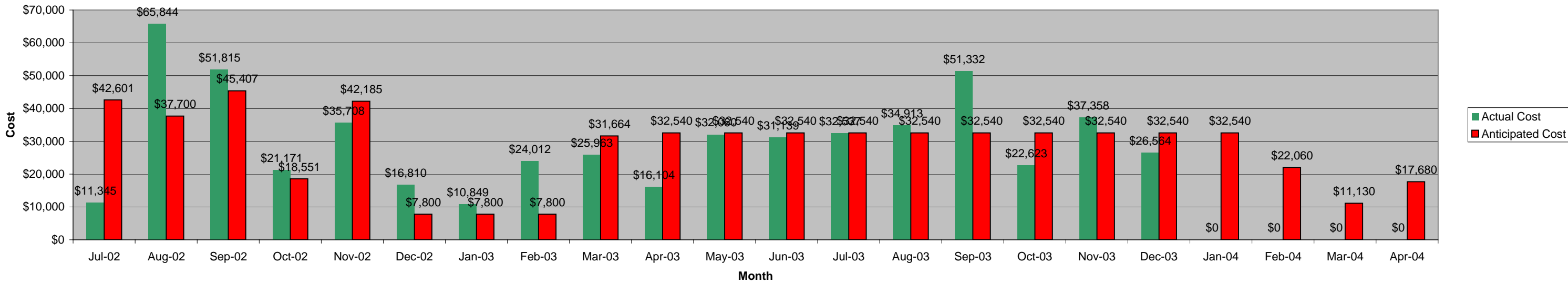
WBS 1.1 Escalation and Contingency

Total for WBS 1.10 =	\$3,133,720	
Total Direct and G&A (above)=	\$2,903,074 *	
Project Support Escalation =	\$0	
Construction Contingency =	\$230,646	8%

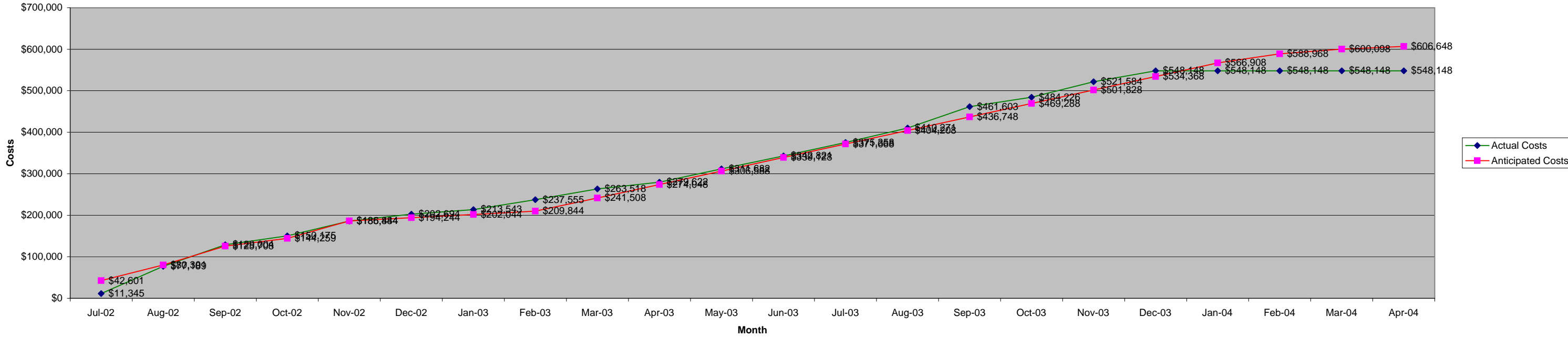
Total Indirect=	\$135,291
Total Direct =	\$482,487

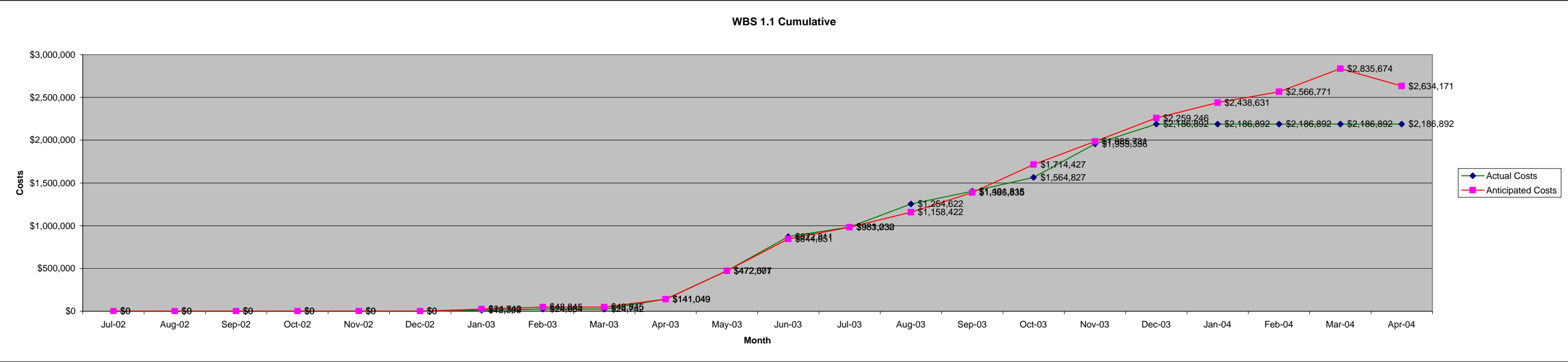
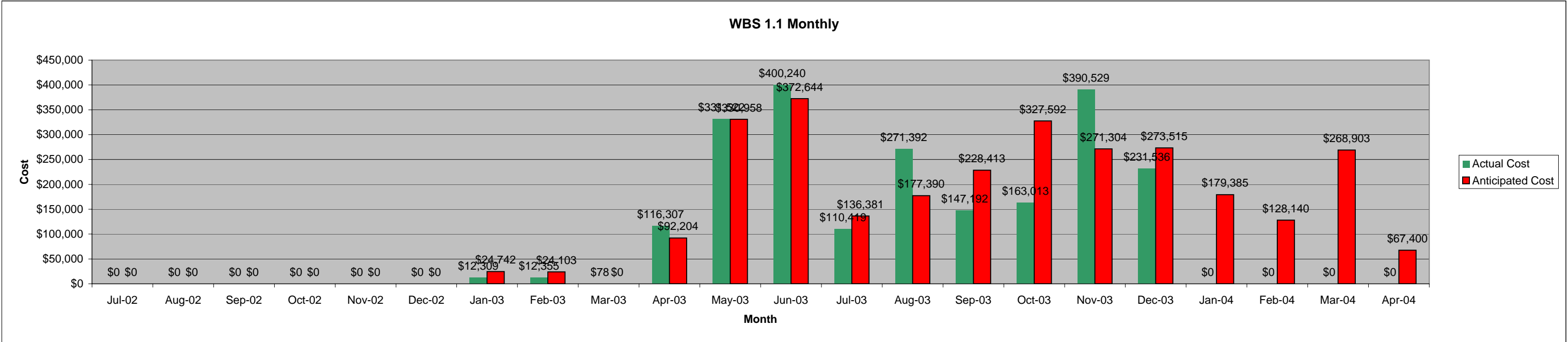
Total Indirect=	\$105,871
Total Direct =	\$2,797,203

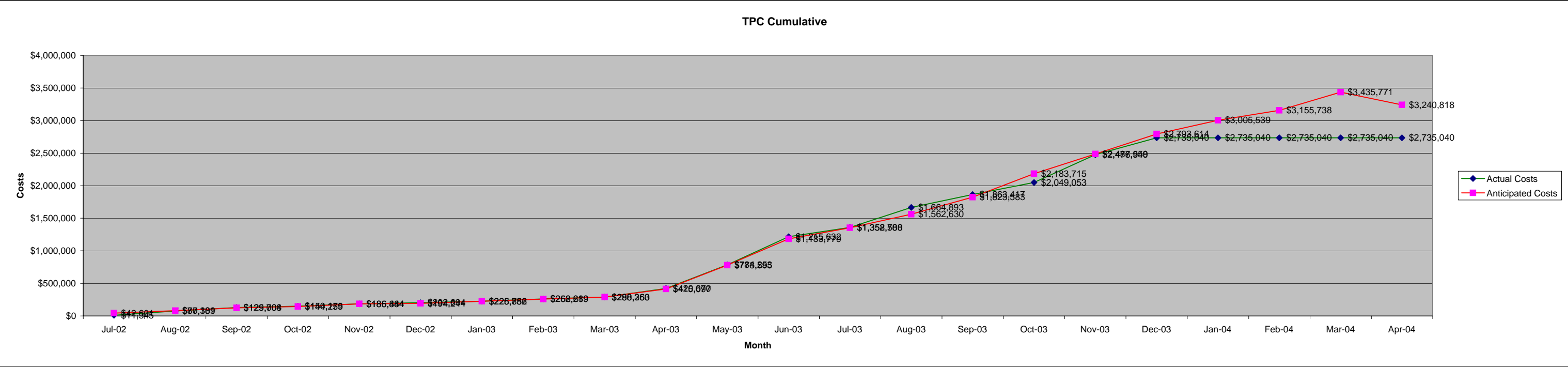
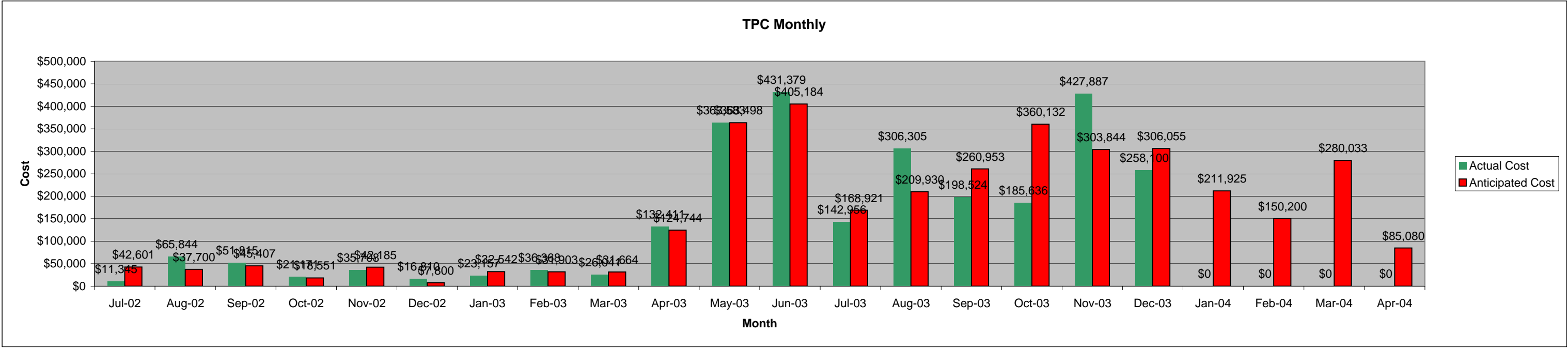
WBS 1.2 Monthly



WBS 1.2 Cumulative







MI-31 ECP LIST

ECP #	Description	Date Issued from CMO	Anticipated Credit, Extra or No Cost	Associated Sketch Number	Actual Credit, Extra or No Cost	Associated Payment Milestone	Overall Schedule Impact In Days	Whittaker Proposal Date	Accepted/Rejected or Pending	Req. #	Req. Approval Date	SA #	Date Work Complete	Comments
1	Holeless elevator instead of single cylinder elevator and add pit ladder	3/12/2003	Extra - \$5000	SK-1...	\$19,390	3a	0	4/17/2003	Accepted	163820	5/6/2003	2		
1a	Full width doors on elevator	3/12/2003	Extra - \$3000	SK-1...	\$3,080	3a	0	4/17/2003	Accepted	163822	5/6/2003	2		
2	Watermain valve clarifications/ modifications and installation of flushing hydrants.	3/12/2003	No Cost	SK-2	\$1,665	1e	1	3/19/2003	Accepted	163549	4/15/2003	1	7/15/2003	
3	Reduce shut down schedule from 6 weeks to 5 weeks VOID	3/12/2003	NA	None	\$0	5a	0	3/28/2003	Rejected					Void
4	Earth retention changes – including bottom of soldier piles to elevation 698 and shielding distance of 18.4 feet.	3/12/2003	No Cost	SK-4	\$0	1b	1	3/28/2003	Accepted	---	4/4/2003	1	4/30/2003	
5	Temporary Bulkhead Door	3/21/2003	Extra - \$7000	SK-5	\$10,231	5a	1	4/14/2003	Accepted	163802	4/25/2003	1	9/11/2003	
6	Modifications to MI Ducts	6/26/2003	Extra – \$30,000	SK-6	\$46,117	5a	5	7/21/2003	Accepted	165776	8/1/2003	4	10/15/2003	
7	Install 6 Atlas Piles at MI-30	From Sub	Extra - \$25,000	See Excavation Plan	\$26,180	1a	3	3/28/2003	Accepted	163420	5/1/2003	1	5/7/2003	Rush Requisition, added because excavation plan required supporting building. Approval by CCB required
8	Credit for Wall Panel Coating change – three coat system to two coat system	4/22/2003	Credit – \$3,500	None	-\$3,500	2h	0	4/25/2003	Accepted	--	4/25/2003	2		
9	Credit for substitute damp proofing product	4/22/2003	Credit- \$7,000	None	-\$7,500	1i	0	4/25/2003	Accepted	--	4/25/2003	2	10/15/2003	
10	Temporary Work Platform on MI-30	5/5/2003	Extra - \$3500	Page 1 of 1	\$4,610	1b	1	5/14/2003	Accepted	164321	5/19/2003	3	6/1/2003	Field Directed on 5/15/03 - Required for maintenance of MI-30 HVAC units
11	Relocation of Building Sump	6/10/2003	No Cost	SK ECP-10	\$0	1d	0	6/24/2003	Accepted	--		4	6/7/2003	
12	Rad. Detector Platform/ Relocation	From Sub	-	None	\$733		0	6/19/2003	Accepted	165153	6/27/2003	4	6/14/2003	Field Directed , noted incorrectly in the requisition as ECP 11. Time and Material.
13	Extra for Concrete Mix Design 71	From Sub	\$7,300	None	\$5,625	1k	0	9/12/2003	Accepted	165389	7/14/2003	5	8/29/2003	See letter from Mike Botts on 6/25/03
14	Connecting Enclosure Mods	7/28/2003	\$1,500	SK-14	\$1,755	5b	0	9/2/2003	Accepted	166707	9/9/2003	5	9/30/2003	
15	Credit for PVC in lieu of Rigid Conduit for ducts on sheet E-6	From Sub	(\$10,000)	None	-\$10,000	5b	0	9/2/2003	Accepted			6	11/7/2003	
16	Topsoil for MI Stockpile	9/12/2003	\$10,000	None	\$4,368	1	0		Accepted	167479	10/21/2003	8?	12/31/2003	Based on per load cost
17	Painting of Cast In Place Walls in Lieu of Concrete Sealer	9/12/2003	\$2,500	None	\$3,362	1	3		Accepted	167479	10/21/2003	6		
18	Time extension for Shielding Steel Placement	From Sub	\$0	None	\$0	5	6		Accepted	--	--	6	NA	
19	Mezzanine	10/22/2003	\$48,000	Several	\$53,127	3	16		Accepted	168753	12/17/2003	7		
20	Bonus for completing MS 5b on time	NA	\$20,000	NA	\$20,000	5b	0	NA	Accepted	167810	10/28/2003	6	11/3/2003	
21	Electrical modifications for Equip. Lift	11/3/2003	\$1,500	SK-21a,b	\$2,890	3	1		Accepted	168516	12/1/2003	7		
22	Add two 600 amp breakers into the 750 kva transformer	From Sub	-	NA	\$8,771	3	0	11/4/2003	Accepted	168124	11/13/2003	7	11/25/2003	
23	Credit for change from 750 mcm to 10 cable	From Sub	(\$850)	NA	-\$850	3			Accepted	--	--	7	11/19/2003	
24	Miscellaneous Field Directed Changes	From Sub	\$1,300	NA	\$1,248	3	0	11/26/2003	Accepted	168657	12/8/2003	7	11/11/2003	Field Directed - Move SF6 footing, Waterproof Conn Enc.
	TOTAL				\$191,302									

Note: Changes above colored in blue indicate added scope and bonus related extras.
All other changes are either unforeseen conditions or plan errors.

Original Subcontract Amount = \$2,527,150
Total Added Scope/Bonus = \$165,375
Total Unforeseen/ Errors = \$25,927
Subcontract amount to date = \$2,718,452

7% change from original subcontract amount includes bonus
1% change from original subcontract amount